

SOME EUGLOSSINE BEES.

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The Euglossines are perhaps the most brilliant of all bees, and appropriately, many of them seem to visit the magnificent orchids of the South American forests. I have recently had occasion to study some previously unnamed Euglossines in the U. S. National Museum, and the results are presented herewith:

Eufriesia purpurata (Mocsary).

I have a male from F. Smith's collection, labelled *Euglossa brullei* Lep., but it does not at all agree with the description of that species, and is a *Eufriesia*, related to *E. pulchra* (Sm.). The locality is S. Paulo, Brazil. It agrees well with *E. purpurata* (Mocs.), and is referred to that species. Mr. Meade-Waldo, to whom I wrote concerning the matter, replied that in the British Museum they had four specimens under *E. brullei*, "all with dark heads and thorax, and abdomens varying from reddish-bronze to almost clear green." He also objected to the reference to *E. purpurata*, since Mocsary's figure (which I have not seen) represented it as having the "head, thorax and abdomen totally reddish-bronze." The description, however, as quoted by Friese, agrees with my specimen. It is stated that the abdomen (excepting the first segment) is "viridi- vel igneo-auratis," as in the British Museum so-called *brullei*. In my specimen it shines copper-red and golden-green in different lights.

Euglossa subg. **Glossura**, n. subg.

Mouth-parts extremely elongated, extending far beyond apex of abdomen; scutellum bigibbous. Type *Euglossa piliventris* guerini. Also includes *E. ignita* Smith.

Euglossa piliventris Guérin.

Bartica, British Guiana, May 17. (U. S. N. M.) I have one from Maroni.

Euglossa bicolor Ducke.

Near Para, Brazil (Miss H. B. Merrill, U. S. N. M.). The sides of the thorax and the last three abdominal segments are green.

Euglossa mandibularis Friese, var. **bernardina**, n. var.

Male. Face and front golden-green, vertex blue-green; mandibles with a minute, cream-coloured spot at base, and a larger one on malar space; thorax and abdomen above shining greenish

blue. As Friese notes, this has very nearly the general form of *E. piliventris*, with bigibbous scutellum. The mesothorax is shining, with minute punctures, not very dense on disc. The mouth-parts do not reach to the end of the abdomen. There is a minute, black fleck in middle of scutellum. The labrum is broader than long, the reverse being the case in *E. piliventris*; and the cream-coloured band at lower sides of face extends broadly from orbits to labrum, whereas in *piliventris* it forms an L-shaped mark.

Hab.—San Bernardino, Paraguay, Oct. 4. (K. Fiebrig; U. S. N. M.) This is very distinct from all species I have seen, but the specimen appears to represent a colour-variety or race of *E. mandibularis*. Friese's description of *mandibularis* omits some of the salient characters of our insect, so it is possibly a different species, to be called *Euglossa bernardina*.

***Euglossa variabilis* Friese.**

Friese separated *E. variabilis* as a species very closely related to the common *E. cordata* L., but distinguished by the more shining, less densely punctured thoracic dorsum. He considered it to be very variable, and named three varieties. Ducke, on reviewing the subject, referred most of Friese's *variabilis* back to *cordata*, but separated one of the varieties as a species, *E. azurea* Ducke. Since this appears to be Friese's *E. variabilis* var. *cyanea*, it is presumably to be called *E. cyanea* (Friese). So far as I am able to judge, *E. variabilis* (excluding *cyanea*) is sufficiently distinct for recognition, and it even seems probable that the varieties deserve specific rank. There is certainly much individual variation in colour, but series collected at the same time and place present a recognizable facies.

***Euglossa variabilis*, var. *mixta* Fries**

Females, collected by Aug. Busck in the region of the Panama Canal, are labelled Tabernilla, July 21, and Cabima, May 21. Another comes from Las Cascadas, collected by A. H. Jennings. The abdomen is variably but always evidently suffused with copper-red or carmine. The insects are a little larger and more robust than the next variety.

***Euglossa variabilis*, var. *purpurea* Friese.**

Friese says the entire body is purple-red. The insects before me are green, suffused with copper-red, but it seems probable that

Friese's type was merely an extreme example of the same race. The specimens seen are from Costa Rica, with the following data: male, Sixola River (Wm. Schaus); female, Pozo Azul, June 5 (M. A. Carriker).

Euglossa variabilis, var. **hemichlora** n. var.

Female. Like the Costa Rica form just mentioned, but abdomen almost pure green, contrasting with the coppery thorax. The small size (as compared with *mixta*) agrees.

Hab.—Paramba, Ecuador, April, from W. F. H. Rosenberg. (U.S.N.M.) If we regard *mixta* and *purpurea* as species, *hemichlora* is a colour-variety of *purpurea*; but if it turns out that Friese's extreme *purpurea* form is specifically distinct from the Costa Rica insect, then *E. hemichlora* will be the name for the series represented by the Costa Rica and Ecuador specimens before me.

Euglossa cyanura, n. sp.

Female.—Length about 10 mm.; like a small *E. variabilis*, but head and thorax brilliant emerald green, abdomen splendid purple-blue, green at base and apex; black tuft or fleck on scutellum very large, extending from apex three-quarters of distance to base; ocelli much closer together than in *variabilis*, the posterior ones separated by a distance only equal to the diameter of one; labrum very short, the dark spots nearly circular; punctures of mesothorax sparser than in the Costa Rica *purpurea*.

Hab.—Porto Bello, Panama, Feb. 24, 1911. (Aug. Busck; U. S. N. M.)

Euglossa charapensis, n. sp.

Female.—Length about 12 mm.; like *E. cordata*, but distinctly larger and more robust; wings very brown; scutellum more densely punctured, shorter in proportion to its width, less filled out at sides posteriorly, and with the black tuft large and broad, extending as in *E. cyanura*; apical part of abdomen with very strong copper-red tints. The face is distinctly broader than in *cordata*.

Hab.—Rio Charapé, Peru, Sept. 17, 1911, (C. H. T. Townsend). This may possibly be Friese's *E. cordata* var. *aureiventris*, but Friese gives no particulars except that the abdomen is shining golden-red, so his insect presumably has the structure of true *E. cordata*. *E. cordata* extends right across South America; I have it from Bahia on the east, and Ecuador on the west.